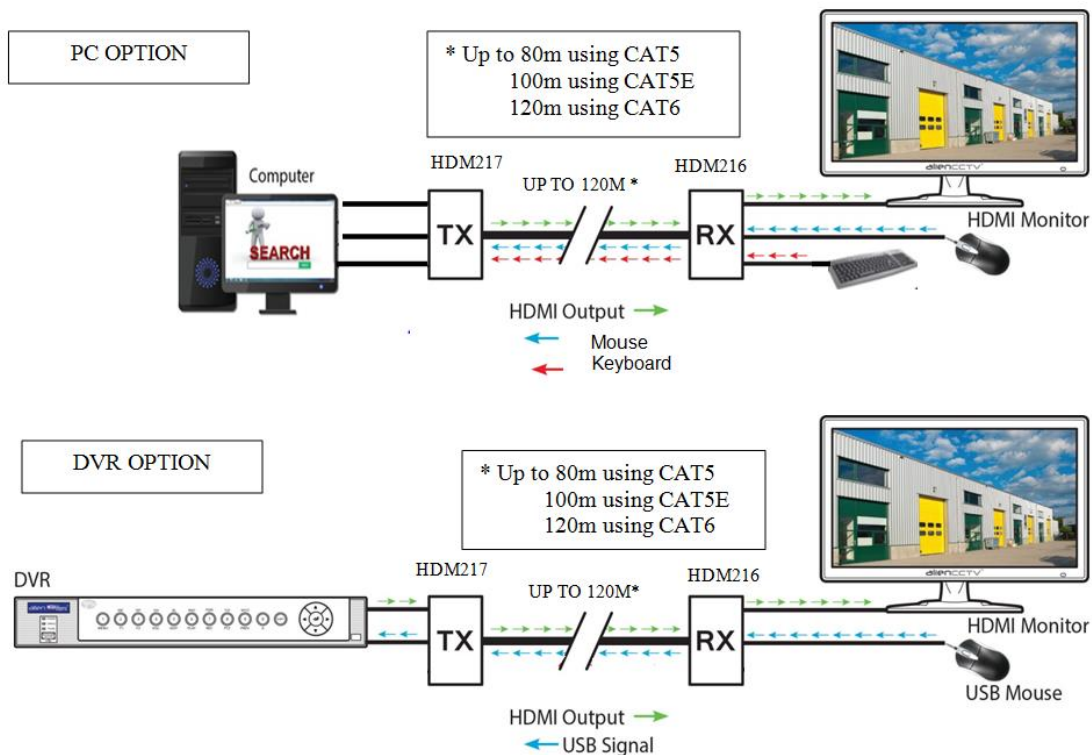## HDM220 HDMI KVM TX/RX

This HDMI KVM (Keyboard, Video and Mouse) switch can control a DVR or NVR from a remote location up to 100 metres on CAT5E or 120 metres on CAT6. It can also control one or more computers from a single keyboard and mouse, and view them with audio on a single HDMI monitor.

The HDM220 consists of an HDM217 transmitter and an HDM216 receiver. These can be purchased individually as one transmitter can control a number of receivers.

Examples of use

The DVR/NVR could be installed in a locked server room and a monitor and mouse installed in a reception area where the DVR/NVR pictures could be viewed and mouse access available to the DVR. Alternatively a PC could provide HDMI to a monitor and the PC could be controlled from a mouse and keyboard.
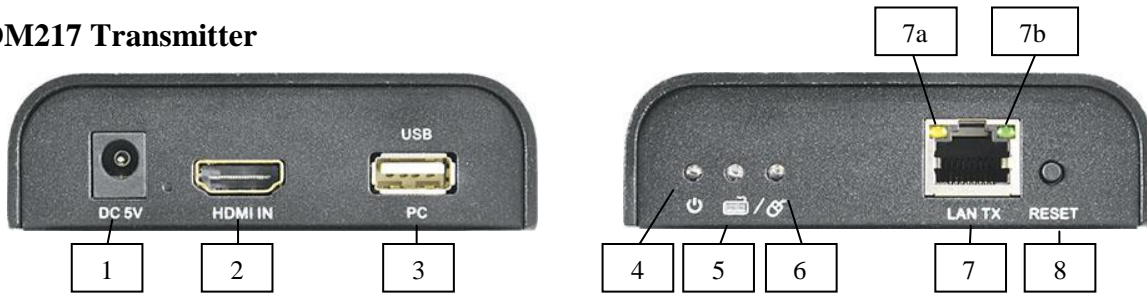

PC OPTION

* Up to 80m using CAT5
100m using CAT5E
120m using CAT6

Computer   HDM217   UP TO 120M *   HDM216   HDMI Monitor

SEARCH   TX   RX

HDMI Output →
← Mouse
← Keyboard

DVR OPTION

* Up to 80m using CAT5
100m using CAT5E
120m using CAT6

DVR   HDM217   UP TO 120M*   HDM216   HDMI Monitor

TX   RX   USB Mouse

HDMI Output →
← USB Signal

List of HDM220 Components

1 x HDM217 Transmitter & USB lead
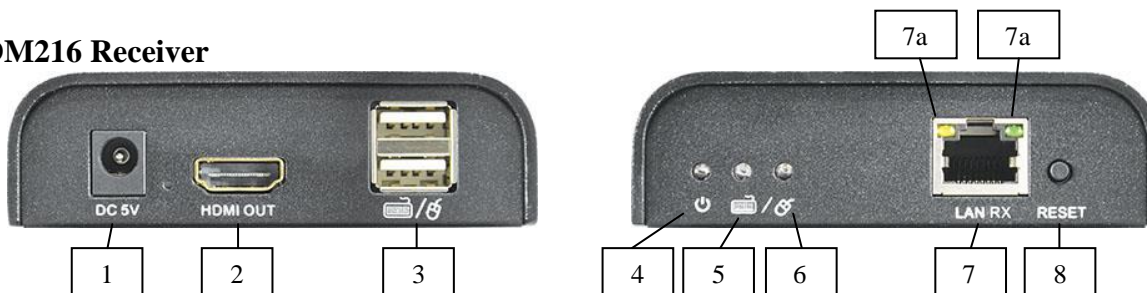**1 x HDM216 Receiver**
2 x 5v DC 1A Power Supplies

Installation Instructions

HDM217 Transmitter

1. 5v DC power input
2. HDMI input port
3. USB port to connect to PC
   (USB cable supplied 120cm)

4. LED Power indicator
5. LED Keyboard indicator
6. LED Mouse indicator
7. LAN Transmit (7a / 7b LEDs)
8. Reset button

HDM216 Receiver

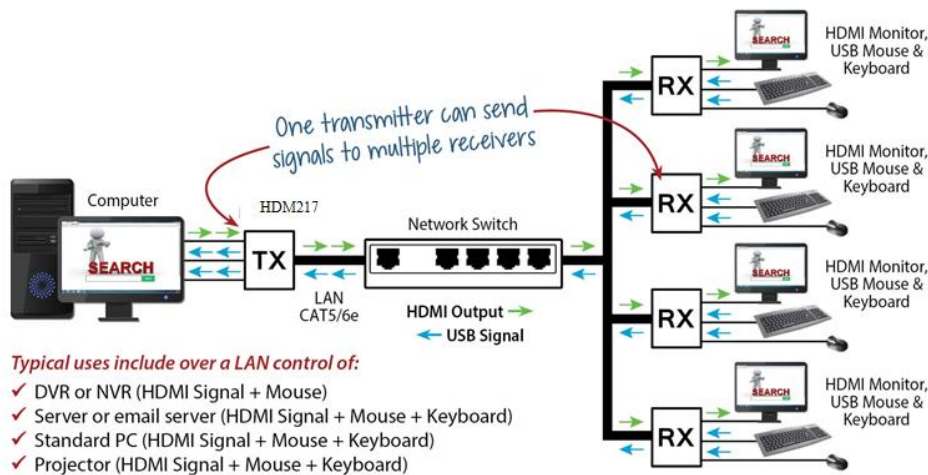1. 5v DC power input
2. HDMI output port
3. USB Dual input
   (Keyboard Input/Mouse Input)

4. LED Power indicator
5. LED Keyboard indicator
6. LED Mouse indicator
7. LAN Receive (7a / 7b LEDs)
8. Reset button

a) Connect an HDMI cable from the DVR, PC, PS3 or DVD player etc. to the Transmitter. Ensure that HDMI cable is no longer than 5 metres for a 1080P input signal or 10 metres for a 720P input signal.

b) Connect the HDMI cable output from the Receiver to the HDMI monitor/HD TV Ensure that the HDMI cable run is no longer than 15 metres.

c) Connect a network cable between the Transmitter and Receiver of no longer than 80 metres using CAT5, 100 metres using CAT5E or 120 metres using CAT6.

d) Connect a 5vDC 1A power supply to the Transmitter and Receiver. The power LEDS should light up. When the signal LEDs light and flicker, the equipment is ready to use.

e)   If you are using a USB mouse or keyboard plug them into the USB ports on the Receiver. You will also need a USB cable fitted between the Transmitter and DVR, or item you are controlling with the mouse. A standard USB 90cm cable is also included.

The HDM217 Transmitter can be used with multiple HDM216 Receivers. The following is an example of one of the options.

Note that when using on an office network, there may be network resource considerations, so in some instances it may be necessary to separate this functionality using a separate network switch.

Troubleshooting
Live Status: When running correctly the Yellow LAN LED is flashing and the Green LED is on.
If the Transmitter is not network connected, a message "Searching TX" displays.
If network connected but no video input, a message "Check TX's input signal" displays.
Note that the speed of the flashing Yellow LAN LED will depend on the network resources available so may differ from one site and another.

Question 1: **Yellow LED on LAN ports is flashing slowly?**
Answer:
1) Ensure the video source is connected to the HDMI Transmitter and not Receiver;
2) Ensure the video source is an HDMI Signal that is supported on the HDM220;
3) Try a different HDMI Cable between the source device and the HDMI Transmitter.

Question 2: **Yellow LED on LAN ports is flashing quickly but no display?**
Answer:
1) Check the resolution from the HDMI source device agrees with the supported resolution of the display device;
2) Ensure that the HDMI Cable between the HDMI Receiver and the display device is connected properly.
3) Try a different HDMI Cable between the source device and the HDMI Receiver.

Question 3: **Yellow LED on LAN ports is not lighting up?**
Answer:
1) Ensure all cables are well connected;
2) Try a short network cable to confirm equipment is okay and problem is not cable length.

Question 4: **Abnormal or flashing colours displayed and cables are connected correctly**
Answer:
1) Please press the reset button on the HDMI transmitter and receiver;
2) Please make sure the network cable meets the IEE-568B standard.

Question 5: **USB does not work?**
Answer:
1) Check the USB device or mouse works in the source device;
2) Ensure the USB cables are properly connected;
3) Reset the HDMI transmitter or receiver.

HDM220 Technical Specification

HDMI Version	HDMI 1.3
HDCP Version	HDCP 1.2
Video Bandwidth	≤ 70Mbps
Supported HDMI Resolutions	640*480@60Hz 800*600@60Hz 1024*768@60Hz 1280*720@60Hz 1360*768@60Hz 1440*900@60Hz 1400-1050@60Hz 1680*1050@60Hz 1920*1080@60Hz
Audio	PCM (44.1KHz, 48KHz)
HDMI Connector	Type A, 19 pin, Female
LAN Connector	RJ45
Power Supplies	2 x 5vDC/1A
Power Consumption	HDM217 Transmitter 700mA HDM216 Receiver 700mA
Power Connection on TX & RX	2.1mm DC Jack
Network Connection	RJ45 cable CAT5/CAT5E/CAT6 max run 80m/100m/120m
HDMI cable run to HDM217 Transmitter	If source 1080P max run 5 metres – if 720P max run 10 metres
HDMI cable run from HDM216 Receiver	15 metres
Operating temperature Range	0°C ~ +50°C
Operating Humidity Range	10% ~ 95% (Non condensing)
Transmission	One HDM217 TX can transmit video & audio to multiple HDM216 RXs
Weight	Transmitter:240g Receiver:240g
Dimensions	109.6(L) x 89.5(W) x 26.3(H)mm *2pcs
Colour	Black

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